

L 17338-63

ACCESSION NR: AP3004883

3

effects of the ion energy. "The authors consider it their pleasant duty to thank G. N. Flerov for initiating this project and his constant interest in it. We also thank S. M. Polikanov for directing the project." Orig. art. has: 4 figures.

ASSOCIATION: Ob"yedinenny\*y institut yaderny\*kh issledovaniy (United Nuclear Research Institute)

SUBMITTED: 18Aug62

DATE ACQ: 28Aug63

ENCL: 00

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NO REF SOV: 002

OTHER: 005

Card 2/2

POLIKANOV, S.M.; VAN TUN-SEN; KEKK, Kh.; MIKHEYEV, V.L.; OGANESEAN, Yu.TS.;  
PLEVE, A.A.; FEFILOV, B.V.

Formation of nuclei with anomalous periods of spontaneous fission in  
reactions involving heavy ions. Zhur. eksp. i teor. fiz. 44 no.3:  
804-807 Mr '63. (MIRA 16:3)

1. Ob'yedinennyy institut yadernykh issledovaniy.  
(Nuclear fission) (Nuclear reactions)(Ions)

KEKKELEV, L.; TOLOKONNIKOV, I.

Notes of a naturalist. IUn.nat. no.5:38-39 My '62. (MIRA 15:7)  
(Birds--Behavior)

KEKKELEV, L.

Falcon of the Urals. Kryl. rod. 16 no.6:18 Je '65.  
(MIRA 18:10)

1. Obshchestvennyy rukovoditel' muzeya istorii Ural'skogo  
zavoda tyazhelogo mashinostroyeniya imeni Sergo Ordzhonikidze.

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000721420014-0

KEKKELEV, L. (Sverdlovsk)

In the name of life. Pozh.delo 9 no.7:6-7 Jl '63. (MIRA 16:10)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000721420014-0"

KEKKONEN, A.

Reclamation of Land - Karelia

In the lake country. Mol. kolkh. 20, No. 4, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Uncl.

"Karelo-Finish SSR" pavillion; guidebook. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1954.  
61 p. (55-34237)

S557.M87 1954kd

KEKKONEN, Fedor Fedorovich; BOL'SHAKOV, G.F., nauchn. r.d.;  
NEVEL'SHTEYN, V.I., ved. red.

[Chemical control in gas pipelines and compressor stations]  
Khimicheskii kontrol' na magistral'nykh gazoprovodakh i  
kompressornykh stantsiakh. Leningrad, Nedra, 1964. 158 p.  
(MIRA 17:12)

EPKO BIKS, A.

Chemical conservation of cattle fodder in the Karelian Autonomous SSR.

P. 14 (PADOMJU LATIJAS KOLHOZNIKS) Riga, Latvia Vol. 9, No. 7, July 1957

SO: Monthly Index of East European Acessions (AEI) Vol. 6, No. 11 November 1957

PETROV, P.N. (Moskva, 6-ya Kozhukhovskaya ul., d.4, kv.4); KERZHNIK, A.I.

Bedside extension support for the positioning of splints in the treatment of hip fractures. Ortop., travm. i protez. 26 no.3:61-63 Mr '65. (MIRA 18:7)

1. Iz 2-y travmatologicheskoy kliniki (zav. - kand. med. nauk P.N.Petrov) Instituta skoroy pomoshchi imeni Sklifosovskogo (dir. - zasluzhennyj vrach UkrSSR M.M.Tarasov), Moskva.

SOKOLOV, I.I., prof. (Moskva A.252, Novopeschannaya ul. d.16, korpus 62 kv.157); ATAYEV, Z.M., kand. med. nauk; KEKSHIN, A.I.

Role of exercise therapy in the functional outcome of the treatment of dislocations of the elbow joint in adolescents. Ortop., travm. i protez. 26 no.9:24-30 S '65. (MIRA 18:10)

1. Iz Moskovskogo instituta skoroy pomoshchi N.I. Sklifsofskogo (dir. zasluzhennyj vrach UkrSSR M.M. Tarasov).

KEKUA, M.G.

137-58-5-9457

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 92 (USSR)

AUTHORS: Petrov, D.A., Kekua, M.G., Khvostikova, V.D., Shashkov,  
Yu.M., Suchkova, A.D.

TITLE: Producing Single Crystals of Silicon (O poluchenii mono-  
kristallov kremniya)

PERIODICAL: V sb.: Vopr. metallurgii i fiz. poluprovodnikov. Moscow,  
AN SSSR, 1957, pp 41-46

ABSTRACT: The production of single crystals of Si by drawing from a melt and vertical floating-zone refining is described. Drawing was performed in an apparatus consisting of 3 parts: a vacuum circulation chamber connected with an evacuation system and equipped with electrical leads and mechanism for raising and rotating the crucible; a working chamber consisting of a metal water-cooled cylinder with viewing window; and heads with a mechanism for raising and rotating the seed crystal. The fusion of the Si in a quartz crucible mounted on a graphite base was done by a slit heater made of spectrally pure graphite, with graphite screens around it. Smelting was in vacuum ( $10^{-4}$ - $10^{-5}$  mm Hg). Si produced by the Beketov method was employed in

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137-58-5-9457

Producing Single Crystals of Silicon

the drawing. After the Si was fused, a thermal regime that assured crystallization of the melt from its center was chosen. The seed was immersed in the melt, and drawing began after it was fused. Single crystals were obtained after the material had been drawn 1, 2, or 3 times. It is noted that the presence of a film on the melt and poor contact between the seed crystal and the melt may cause the crystal drawn to be a polycrystalline. Vertical floating-zone refining was performed in an apparatus consisting of a vacuum chamber in which a Si bar, produced by drawing, was mounted vertically. A Ta heater, creating a zone of fusion within the specimen, moved along the specimen at a rate of  $\sqrt{2}$  mm/min. It was found that a given degree of superheating of the zone was a condition for the production of a single crystal by this method. In a polycrystalline specimen a monocrystalline portion was produced only after several passes, while this was accomplished on the first pass when a monocrystalline seed crystal was employed. Single crystals of Si with resistivities of 15-60 ohm/cm were produced on these apparatus.

1. Single crystals--Growth    2. Single crystals--Resistivity    3. Silicon--Applications

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137-58-6-12122

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 134 (USSR)

AUTHORS: Petrov, D.A., Kekua, M.G., Dashevskiy, M.Ya., Zemskov, V.S., Petrusevich, R.L.

TITLE: Progress of Work on the Refining of Germanium by Means of Crystallization and Achievement of Germanium Single Crystals With Longitudinally Homogeneous Properties (Razvitiye rabot po ochistke germaniya metodami kristallizatsii i polucheniye monokristallov germaniya s ravnomernymi svoystvami po dlini)

PERIODICAL: V sb.: Vopr. metallurgii i fiz. poluprovodnikov. Moscow, AN SSSR, 1957, pp 50-58

ABSTRACT: Experiments were performed in order to investigate the possibilities of producing single crystals with uniform longitudinal and cross-sectional distribution of impurities by means of pulling at a controlled rate as well as by pulling accompanied by constant feeding of pure Ge into the melt. The raw polycrystalline material with a  $\rho$  of 5-20 ohm/cm was purified by means of zonal recrystallization under a vacuum of  $10^{-4}$  mm Hg, or in a stream of  $H_2$ , until it exhibited a  $\rho$  of 50-60 ohm/cm. A high-frequency heating apparatus with three

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137-58-6-12122

Progress of Work on the Refining of Germanium (cont.)

induction units moving back and forth was employed. It was found that single Ge crystals, grown by the Chokhralskiy method from purified material with a  $\rho$  of 50-60 ohm/cm in conjunction with mixing of the melt by rotating the crucible and the growing crystal, can achieve  $\rho$  and  $T$  values of 60 ohm/cm and 1000  $\mu$  sec, respectively; if the rotation is omitted from the growth process, the  $\rho$  and the  $T$  amount to 25-50 ohm/cm and 200-250  $\mu$  sec, respectively. The UVM-2 apparatus, employed in the process of pulling the crystal under vacuum ( $10^{-4}$  mm Hg) in accordance with scheduled variations of the rate of pulling, utilizes a hydraulic raising mechanism which provides a smooth variation of the elevation rate from 0.05 to 8 mm/min in conjunction with the rotation of the crucible and the growing crystal. The  $\rho$  value of grown crystals 50 mm in diameter and 180 mm long deviated from the mean value of  $\sim 40$ -60 ohm/cm, at a length of 100-150 mm, by 8.9-9.3% and was within the limits of error of measurement. It is pointed out that because of variations in conditions of crystallization only macrouniformity in the distribution of impurities can be achieved by this method. The variations were eliminated in another device which was designed for a process in which the pulling is accompanied by seeding of pure Ge into the melt. Prior to immersion into the melt, the feed ingot passes through a heating unit (composed of a quartz tube wound with W wire), while the ingot being pulled passes

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137-58-6-12122

Progress of Work on the Refining of Germanium (cont.)

through a water-cooled unit made of stainless steel. The process of pulling was carried out in an Ar atmosphere. The fact that the feed ingot and the growing crystal, which may rotate, were placed eccentrically with respect to the axis of rotation of the crucible, contributed to a better mixing of the melt contained in the crucible. It was found that the longitudinal  $\varphi$  fluctuations in single crystals obtained by this method did not exceed  $\pm 5\%$ , whereas in the case of a crystal produced in this apparatus without the employment of pure Ge the scatter amounted to  $\pm 24\%$ . Studies of crystals with a diameter of 50 mm have revealed that the  $\rho$  was sufficiently uniform throughout the cross section of the crystal and that the diffusion-path length of minority current carriers did not deviate by more than 10-15%. The authors express the opinion that intensive cooling of the growing crystal, which results in the achievement of a plane crystallization front, contributes to uniform distribution of electrical properties throughout the cross section of the crystal. Grown single crystals which exhibited nonuniform cross-sectional distribution of  $\rho$  were subjected to heat treatment in order to bring about a redistribution of  $\rho$  values; in the process the mean value of resistivity remained unaltered, while the diffusion-path length of the minority current carriers increased somewhat.

1. Germanium--Processing    2. Germanium--Crystallization  
3. Single crystals--Growth    4. Single crystals--Properties    I.S.

Card 3/3

KEKUA, M.G.; ZEMSKOV, V.S.

K voprosu polucheniya ravnomernogo raspredeleniya  
primesey vdoly napravleniya rosta monokristalla.

report submitted for the 5th Physical Chemical Conference on  
Steel Production.

MOSCOW 30 JUN 1959

SOV/180-59-1-3/29

AUTHORS: Belokurova, I.N., Kekua, M.G., Petrov, D.A. and Suchkova, A.D. (Moscow)

TITLE: Production of Single Crystals of Alloys of Germanium with Silicon (O poluchenii monokristallov splavov germaniya s kremniyem)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1959, Nr 1, pp 9-12, + 1 plate, (USSR)

ABSTRACT: The production of single crystals of solid solutions of germanium with silicon is important in the semiconductor field since they can combine the advantages of both elements. The authors describe their experiments with two methods of production. In the first, similar to that of Davis (Ref 4), a melt of the required composition was produced in an evacuated quartz ampoule in a silit furnace. The melt was held at 20-25°C above the liquidus temperature for four hours and then cooled at 1.5°C per hour. Single crystals with 0.5 - 5 at. % Si were obtained but it was found (Table 1) that they were heterogeneous in composition, having a gradient of silicon content and conductivity. The Laue patterns

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SOV/180-59-1-3/29

Production of Single Crystals of Alloys of Germanium with Silicon (Fig 4) indicate that growth occurs with a [100] orientation. The second method is based on drawing a crystal with continuous feed of melt as described by D.A. Petrov and V.S. Zemskov (Ref 6). For this a special apparatus was developed shown open in Fig 2 and in operation in Fig 1. A quartz crucible is heated by a graphite heater and a vacuum of  $10^{-4}$  mm Hg is maintained while a crystal is drawn, a polycrystalline ingot of the same composition being added to the crucible at the same rate. Temperature is controlled manually and is chosen to give a single-crystal diameter equal to that of the feed ingot, the rate of feed and drawing then being the same and equal to 1.7 mm/min. Both crucible and crystal are rotated. Specimens were obtained (Table 2) with 0.70, 0.75, 1.0 and 2.0 at. % Si with homogeneous composition and electrical properties. Fig 8 shows resistivities as functions of length along specimens for several specimens. Specimens with [11] orientated

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30V/180-59-1-3/29

Production of Single Crystals of Alloys of Germanium with Silicon

growth axes are shown in Fig 5, while Figs 6 and 7 show Laue patterns from the seeding crystal and the single crystal, respectively.

Card 3/3 There are 8 figures, 2 tables and 6 references, 3 of which are English, 2 Soviet and 1 German.

SUBMITTED: August 8, 1958

PLACE TO BOOK EXPLANATION 3071558  
SER/2m3-5

- Akademika SSSR. Institut metallovedeniya  
Metallovedenie, metalloobedenie, fiziko-khimicheskie metody (radiotomika  
(Physicochemical Research Methods in Metallurgy and Metal Science) Moscow,  
Izdat. Akad. Nauk SSSR, 1960, 251 p. (Series: Itis: Trudy, vyp. 5.) Errata slip  
inserted. 2,800 copies printed.
- Submitting Agency: Akademika SSSR. Institut metallovedeniya imeni A.A. Bauman.  
Rep. No.: I.P. Savchenko. Academician (Deceased); Ed. or Publishing House:  
V.A. El'mer; Tech. Ed.: T.P. Radovor.  
REPORT: This collection of articles is intended for metallurgists and metal  
researchers.
- CONTENTS: The collection contains articles on metallurgy, metal science, and  
physicochemical research methods. Separate articles discuss the structure  
and properties of some metals and alloys. The effect of cold treatments and  
heat-treatments on the properties of alloys are analysed, and test methods and  
measuring devices are described. Physicochemical study of the  
Si-C-Al system.
- Sokol'skiy, Yu. M., and V.V. Shchegolev. Study of the Structure and  
Physicochemical Properties of Polyvalent Oxide Alloys  
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KEKUL'A, M.E.

ZHURKIN, B.G.; KEKUA, M.O.; BELOKUROVA, I.N.

Investigating the electrical properties of Ge-Si al'loys. Trudy Inst.  
met. no.5:178-182 '60. (MIRA 13:6)  
(Germanium-silicon alloys--Electric properties)

ACCESSION NR: AR4014139

S/0137/63/000/012/A016/A016

SOURCE: RZh. Metallurgiya, Abs. 12A88

AUTHOR: Kekua, M. G.

TITLE: Study of the distribution coefficient of silicon in germanium and determination of the effective solidus of solid solutions of the system Ge--Si

CITED SOURCE: Metalurgis institutis shromebi. Sakartvelos SSR Metsniyerebata Akademi, Tr. In-ta metallurgii. AN CruzSSR, v. 13, 1962 (1963), 275-281

TOPIC TAGS: Germanium, silicon, solidus curve, germanium single crystal, silicon single crystal, silicon distribution coefficient, silicon germanium alloy

TRANSLATION: The effective distribution coefficient  $K_{eff}$  of Si in Ge was studied as a function of the composition over the entire system Si--Ge, and the effective solidus of this system was determined. The samples were prepared by withdrawing from the melt in a vacuum unit for the preparation of single crystals. The growth of the solid phase was carried out at the rate of 0.37-0.40 mm/min, the crucible

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ACCESSION NR: AR4014139

being rotated at 10 rpm and the seed at 30 rpm. The Si concentration in the melt was determined from an average sample taken with a quartz ladle from the mother melt before its solidification. To determine Si in the solid phase, a segment of the crystal 8 mm long and 10-12 mm in diameter was cut off which solidified at the start of the withdrawal. The specific gravity of the alloys was determined hydrostatically, then the samples were subjected to chemical analysis. It was found that the  $K_{eff}$  of Si and Ge were considerably smaller than the equilibrium  $K_{eff}$ . As the Si content increases, the  $K_{eff}$  of Si in Ge decreases, and at 80-90 at. % Si,  $K_{eff}$  is equal to 1.1. The line of the effective solidus was plotted for the entire Si-Ge system. P. Arsent'yev.

DATE ACQ: 09Jan64

SUB CODE: ML

ENCL: 00

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L 06474-67 EWT(1)/EWT(m)/EWP(t)/ETI IJF(c) GG/JD  
ACC NR: AR6028229 SOURCE CODE: UR/0081/66/000/009/B059/B059

AUTHOR: Kekus, M. G.

TITLE: Distribution of impurities in crystals as a function of the conditions of their growth

SOURCE: Ref. sh. Khimiya, Part I, Abs. 9B426

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REF SOURCE: Tr. Grus. in-t metallurgii, v. 14, 1965, 171-178

TOPIC TAGS: germanium single crystal, crystal impurity, single crystal growing

ABSTRACT: Studies aimed at determining the degree of inhomogeneity in the distribution of a doping impurity with a distribution coefficient in excess of unity were carried out on Ge single crystals doped with Si and grown in three ways: stationary method by slow cooling, pulling by Czochralski's method, and pulling from a melt supplied with a solid ingot. In specimens grown by the stationary method of slow cooling at a cooling rate of 1.5 deg/hr, the ingots were found to be inhomogeneous along the length and cross section. A homogeneous ingot structure was obtained by using the method of supplying the melt. V. Maslov. [Translation of abstract]

SUB CODE: 20

Card 1/1 MAE

KEKUKH, A.M.

Conditions of growing corn in the southern steppe in connection with  
its water consumption and optimal soil moisture. Trudy UkrNIGMI no.44:  
29-39 '64. (MIRA 17:11)

The relation between the processes of assimilation and transpiration in crop plants. A. M. Klyuch. Bull. Acad. sci. U. R. S. S., Chislennaya mat. i. meh. fiz., 1938, 1111 19 (in English, 1119 20). The interdependence of transpiration (I) and assimilation (II) may be considered as the result of the action of sep. physiol. processes on the physiol. complex as a whole. In the absence of intense geophys. factors I and II proceed smoothly and synchronously with external conditions.

John E. Lask

The effect of magnesium salts, when applied around  
the roots, on the tuber formation of potatoes. (U.S.  
Agricultural Experiment Station Circular No. 253)  
by W. H. Nichols  
1912

Ukr. viddil Vsesoyuznoho sii'stobospedars'kogo in'ovrjatva.

KEKUKH, A.M.; LICHIKAKI, V.M.; PALAMARCHUK, N.P.; TREGUBOVA, A.S.

Significance of the hydrological properties of soil when determined by indoor cultivation of plants in pots. Dop. AN URSR no. 4:275-279 '54.  
(MLRA 8:4)

1. Ukrains'kiy n.-d. gidrometeorologichniy institut. Predstavлено  
deystvitel'nym chlenom AN USSR P.S.Pogrebnyakom.  
(Soil moisture)

KEKUKH, A.M.

USSR/Biology - Organic products

Card 1/1 Pub. 86 - 14/33

Authors : Kekukh, A. M., Cand. Tech. Sci.

Title : Biological bases for the production of turpentine

Periodical : Priroda 43/11, 98-101, Nov 1954

Abstract : A short history is given of the extraction of oleoresins and similar substances containing essential oils from the pine, the rose, the lemon tree, etc., all of which contain the radical terpene, C<sub>10</sub>H<sub>16</sub>. It is pointed out that in the economy of the plant the liquid oozing from a wound forms a hard scab which protects the plant against fungi. It is also claimed that essential oils are the residue after the plant has extracted needed oxygen from other compounds. Illustration; drawings.

Institution : ...

Submitted : ...

From NERA card - Panel. Biol. Sci (KIEV)

KUKH, A.M.

Production significance of the agrohydrological properties of main  
soil types of the Ukrainian S.S.R. Trudy Ukr NIGMI no.3:21-24 '55.  
(MIRA 9;10)

1. Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskiy  
institut.  
(Ukraine —Soil moisture)

KUKH, A.M.; TREGUBOVA, A.S.

Effect of agrometeorological conditions on sugar-beet sprouts. Trudy  
Ukr. NIGMI no. 4: 54-58 '55,  
(Meteorology, Agricultural) (Sugar beets)

(MLRA 10:1)

KEKUKH, A.M.; TREGUBOVA, A.S.

Methods for observing the growth of sugar beets in order to  
predict their harvest. Trudy Ukr.NIGMI no.6:183-191 '56.  
(MLRA 10:5)

(Sugar beets)

USSR/Cultivated Plants - Commercial. Oil-Bearing. Sugar-Bearing. M

Abs Jour : Ref Zhur Biol., No 18, 1958, 82453

Author : Kekelidze, A.M., Mikheylova, N.I.

Inst : AS USSR

Title : Determination of the Aggregate Evaporation of a Beet Field by Diffusion Method.

Orig Pub : V sb.: Biol. osnovy erocheniya zemled. M., AN SSSR, 1957, 438-446

Abstract : The new methods of the determination of evaporation are based either on the calculation of thermal balance or on the diffusion of water vapor over the evaporating surface. The latter method is based on the utilization of the

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APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420014-0"

USSR/Cultivated Plants - Commercial. Oil-Bearing. Sugar-Bearing. M

Abs Jour : Ref Zhur Biol., No 18, 1958, 82453

diffusion equation for the calculation of evaporation. The diffusion method of the determination of evaporation has been described in the special instructions of the Main Geographic Observatory. In addition to this, psychrometers placed at two altitudes are tilted, and next to them hand anerometers are set up at the same height. In the experiment beet was grown in vegetation vessels of V.P. Popov design consisting actually of a container of the capacity of 45 kilograms of soil with a perforated bottom and a similar case of 60 centimeters in height stuck completely into the ground. Observations were conducted with P 632 variety in July and August in the order of methodical processing. During the first period of the experiment (17-21 of July) the weather was gloomy, with rains, predominantly without sunshine. Under these conditions the total evaporation on the beet field comprised 2.4-4.2 millimeters in a 24-hour period

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Kekukh, A.M.

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PHASE I BOOK EXPLOITATION

SOV/2384

Konferentsiya po agrometeorologii i agroklimatologii Ukrainskoy SSR

Materialy konferentsii (Material of the Conference on Agricultural Meteorology and Climatology of the Ukrainian SSR) Leningrad, Gidrometeoizdat, 1958. 247 p. Errat<sup>w</sup> slip inserted. 700 copies printed.

Sponsoring Agencies: USSR. Glavnoye upravleniy gidrometeorologicheskoy sluzhby, Ukrainian SSR. Ministerstvo sel'skogo khozyaystva, Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut, and Ukrainskaya akademiy sel'skokhozyaystvennykh nauk.

Resp. Ed.: G.F. Prihot'ko; Ed.: V.D. Pisoarevskaya; Tech. Ed.: M.I. Braynina.

PURPOSE: This book is intended for agriculturists, agrometeorologists, and instructors in related vuzes.

COVERAGE: This collection of articles deals with problems in agricultural meteorology in the Ukraine. Among the topics discussed

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CIA-RDP86-00513R000721420014-0"

Material of the Conference (Cont.)

SOV/2384

are: wintering, planting time for winter crops, corn cultivation, potato degeneration, moisture supply, and adverse weather factors. References accompany individual articles.

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Rudenko, A.I. [All-Union Institute of Crop Science] The Effect of Climatic Conditions on the Degeneration of Potatoes and the Appear-	

Card 6/7

KEKUKH, A.M.; MIKHAYLOVA, N.I.

Water requirements of sugar beets in beet-growing regions of  
the Ukraine. Trudy UkrNIGMI no.14:24-45 '58. (MIRA 12:5)  
(Ukraine--Sugar beets--Water requirements)

~~KEKUKH, A. M., kand,biolog.nauk (g.Kiyev)~~

L.P.Simirenko, an outstanding pomologist, Agrobiologiya no.3:  
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(Simirenko, Lev Platonovich)

BUCHINSKIY, I.Ye.; IOVENKO, N.G.; KUKH, A.M.; SAPOZHNIKOVA, S.A.

Agroclimatic features of the Ukrainian forest steppe and the  
effectiveness of fallows in the rotation of crops. Trudy UkrNIGMI  
no.16:3-15 '59. (MIRA 13:6)  
(Ukraine--Fallowing)

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000721420014-0

KEKUKH, A.M.; MIKHAYLOVA, N.I.

Moisture resources available to corn in the Ukrainian S.S.R. Trudy  
UkrNIGMI no.16:54-62 '59. (MIRA 13:6)  
(Ukraine--Corn (Maize)--Water requirements)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000721420014-0"

IOVENKO, Nikolay Grigor'yevich; KEKUKH, A.M., nauchnyy sotrudnik;  
BELKINA, Z.A., red.; BRAYNINA, M.I., tekhn.red.

[Hydro-physical properties and water balance of soils in the  
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(Soil moisture)

KEKUKH, A.M.

Characteristics of soil moisture in winter wheat fields and  
its role in the wintering period of 1955-1956. Trudy  
UKrNIGMI no.22:3-18 '61 (MIRA 14:6)

{Ukraine—Wheat)  
(Plants, Effect of soil moisture on)  
(Plants—Frost resistance)

KEKUKH, A.M.; TIMOSHENKO, G.L.

Agrometeorological conditions of the planting time of corn in  
the Ukraine. Trudy UKrNIGMI no.22:32-38 '61. (MIRA 14:6)  
(Ukraine--Corn (Maize)) (Germination) (Meteorology, Agricultural)

KEKUKH, A.M.; KOPACHEVSKAYA, M.N.

Characteristics of different corn varieties with reference to  
their temperature requirements. Trudy UKrNIGMI no.22:39-54  
'61. (MIRA 14:6)

(Ukraine—Corn (Maize)—Varieties)  
(Plants, Effect of temperature on)

KEKUKH, A.M. [Kekukh, O.M.], kand.biolog.nauk; SAPOZHNKOVA, S.O., doktor  
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in the Ukraine. Visnyk sil'hosp.nauky 4 no.8:29-36 Ag '61.  
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(Ukraine--Field crops)

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Agroclimatic foundation of the distribution of stubble crops in  
the Ukraine. Trudy UkrNIGMI no.28:55-71 '62. (MIRA 15:8)  
(Ukraine--Field crops) (Ukraine--Crops and climate)

BALAKHONOV, V.P.; BOCHIN, N.A.; GUTERMAN, I.G.; ZAKHAROV, V.N.; ZHIYEV,  
A.B.; KARMANOV, V.D.; KEKUKH, A.M.; MARGOLIN, L.M.; TOPAL, I.D.

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Agroclimatic characteristics of the role of fallows. Zemledelie 27  
no.9:17-21 S '65. (MIRA 18:10)

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Agrometeorological conditions for beet sowing in the northeast  
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DMITRENKO, V.P.; KEKUKH, A.M.

Meteorological factors and the yield of grain crops. Trudy  
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Some characteristics of the jointing of rocks. Vest. AN  
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Effect of fracturing on the character of the breaking of rocks  
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CIA-RDP86-00513R000721420014-0

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SO: SUM 318, 23 Dec 1954

APPROVED FOR RELEASE: 06/13/2000

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KAZANSKIY, B.A., red.; GUSEVA, A.P., tekhn. red.; GUS'KAVA, O.M.,  
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March 1956

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(MUSCLE)

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[Description of fossil organisms; brief handbook of methods to aid the geologist-stratigrapher] Opisanie iskopaemykh organizmov; kratkoe metodicheskoe rukovodstvo, v pomoshch' geologu-stratigrafu. Leningrad, Izd-vo Leningradskogo universiteta, 1954. 45 p. [Microfilm](MLRA 7:11)  
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[Geology, and oil and gas potentials of the Ob'-Irtysh interfluve]  
Geologiya i perspektivy neftegazonosnosti Ob'-Irtyshskogo mezhdurech'ia.  
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(Irtysh Valley--Gas, Natural--Geology)

SAKS, Vladimir Nikolayevich; GRUJBERG, I.S.; RONKINA, Z.Z.; APIONOVA, E.N.;  
SPIZHARSKIY, T.N., nauchnyy red.; KELAREV, L.A., vedushchiy red.;  
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L.A., vedushchiy red.

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(Carpathian Mountain region---Petroleum geology)  
(MIR 13:1)

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L.A., vedushchiy red.; YASHCHUZHINSKAYA, A.B., tekhn.red.

[Hydrothermal rocks in the Bukhtarma region of the Rudnyy  
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(MIRA 14:2)

(Bukhtarma Valley—Rocks, Crystalline and metamorphic)

MISHAREV, Daniil Timofeyevich; AMELANDOV, A.S. [deceased]; ZAKHARCHENKO, A.I.; SMIRNOVA, V.S.; MURASHOV, D.F., nauchnyy red.; KELAREV, L.A., vedushchiy i tekhn.red.

[Stratigraphy, tectonics, and pegmatite potential of the north-western White Sea region] Stratigrafiia, tektonika i pegmatit-oncnost' Severo-Zapadnogo Belomor'ia. Leningrad, 1960. 110 p. (Leningrad. Vsesoyuznyi geologicheskii institut. Trudy, vol.31) (MIRA 14:7)

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D'YACHKOV, Z.S.; KELAREV, N.V.; L'VOV, I.I.

Refractory materials made of kaolin from Teletayevo,  
Uralmash 26 to.10:45-461 '61. (TIR 14:11)

1. Vostochnyj institut ognju, orov (for D'yachkova, Kelarev').
2. Chelyabinskij metallurgicheskiy zavod (for L'vov).  
(refractory materials)  
(Teletayevo (Chelyabinsk Province--kaolin))

KELAREV, V.V.; KLYUSHIN, V.V.; LYASHCHENKO, B.G.

Dependence of the magnetic structure of FePt<sub>3</sub> alloys on the  
degree of long-range ordering. Fiz. met. i metalloved. 17  
no.5:779-782 My '64. (MIRA 17:9)

1. Institut fiziki metallov AN SSSR.

L 07099-67 EWT(1)/EWT(m)/EWP(t)/ETI IJP(c) JD/JG  
ACC NR: AF6029110

SOURCE CODE: UR/0048/66/030/006/0968/0971

AUTHOR: Klyushin, V.V.; Sidorov, S.K.; Kelarev, V.V.; Getman, I.Ya.; Arkhipov, V.Ye.

ORG: Institute of Metal Physics, Academy of Sciences of the SSSR (Institut fiziki metallov Akademii nauk SSSR)

TITLE: Antiferro-ferromagnetic phase transition in the  $Fe(Pt_xPd_{1-x})_3$  system [Report, All-Union Conference on the Physics of Ferro- and Antiferromagnetism held 2-7 July 1965 in Sverdlovsk]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 6, 1966, 968-971

TOPIC TAGS: phase transition, ordered alloy, electric resistance, spontaneous magnetization, coercive force, iron alloy, platinum alloy, palladium alloy

ABSTRACT: The  $Fe(Pt_xPd_{1-x})_3$  system was selected for investigation in view of its suitability for study of the behavior of the antiferromagnetic-ferromagnetic phase transition. The end compositions  $FePt_3$  and  $FePd_3$  are binary alloys with known properties, which become ordered ( $AuCu_3$  type ordering) at 710 and  $820^{\circ}C$ , respectively. The mixed ternary alloys (with 25 atomic percent iron) are also characterized by  $AuCu_3$  type ordering. The investigated compositions are tabulated (16 different specimens); the specimen preparation procedure and the resistivity measurement method were the same as described by V.V.Klyushin, I.Ya.Getman, V.N.Zubankov, and V.V.Kelarev (Fiz. metallov i metallovedeniye, 21, 153, 1966). The temperatures of the phase

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L 07099-67

ACC NR: AP6029110

transitions were determined from the anomalies in the temperature dependences of the electric resistivity. Also measured were the values of the spontaneous magnetization and the coercive force. These were determined by means of a vibrating magnetometer to within 3% for rod specimens. The composition dependences of the Neel and Curie points, the magnetic moment and the coercive force are presented in figures. A radical change or break in the curves is evinced in the region of 37 to 50 atomic percent Pd. The results and specifically the probable character of the antiferro-ferromagnetic phase transition are discussed at some length. It is concluded that the transition is realized by the process described by S.K.Sidorov and A.V.Doroshenko (Fiz. metallov i metallovedeniye, 18, 811, 1964), involving gradual rotation of the magnetic moments in the entire volume of the specimen or appearance of ferromagnetic phase nuclei in the antiferromagnetic phase and the growth of these nuclei. Which of these mechanisms predominates will be determined in further studies. Orig. art. has: 1 table and 8 figures.

SUB CODE: 20,07 SUBM DATE: 00 ORIG. REF: 005 OTH REF: . 007

Card 2/2 bch

124-1957-1-416

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 1, p 51 (USSR)

AUTHORS: Shorin, V. G., Kelarev, Yu. I.

TITLE: On the Air Resistance in Underground Locomotive Haulage (O soprotivlenii vozdushnoy sredy pri podzemnoy lokomotivnoy otkatke)

PERIODICAL: Nauch. tr. po vopr. gorn. dela. Mosk. gorn. in-t, 1955,  
Nr 15, pp 117-121

ABSTRACT: The existing method for calculating the air resistance encountered by a train moving along a tunnel is extended to the case of a train of mining cars with a bulk cargo. A sample calculation is given.

O. V. Yakovlevskiy

1. Air--Resistance--Analysis    2. Tunnels--Applications

Card 1/1

S/131/61/000/010/001/004  
B130/B101

AUTHORS: D'yachkova, Z. S., Kelarev, N. V., and Lande, P. A.

TITLE: Refractory materials from kaolin of the poletayevskoye deposit

PERIODICAL: Ogneupory, no. 10, 1961, 458 - 461

TEXT: Kaolin of the poletayevskoye deposit near Chelyabinsk was tested as to its suitability for the production of refractory materials. 410 t of kaolin was mined for this purpose by the Miasskaya kompleksnaya geologo-razvedochnaya partiya (Miass Comprehensive Group of Geological Exploration). The following properties of the kaolin were determined: 53 - 81% silicic acid, mostly >70%; 16 - 32%  $\text{Al}_2\text{O}_3$ ; 0.2 - 3.56%  $\text{Fe}_2\text{O}_3$ .

Heat resistance lies between 1630 and 1760°C. The kaolin can easily be concentrated by the wet process. In the concentrated kaolin, three types are distinguished: noncaking, light-colored (60%), caking (30%), and non-caking containing quartz (10 - 15%). The kaolin is coarsely disperse; the sum of fractions below 5 $\mu$  amounts to 57.1%. Concentrated kaolin cakes between 1500 and 1550°C. The kaolin was concentrated at the

Card 1/3

S/131/61/000/010/001/004  
B130/B101

Refractory materials from...

Kyshtymskiy grafito-kaolinovyy kombinat (Kyshtym Graphite and Kaolin Combine); its yield was 45%. Its composition related to fired material was: 53.8% SiO<sub>2</sub>, 43.1% Al<sub>2</sub>O<sub>3</sub>, 0.9% TiO<sub>2</sub>, 2.1% Fe<sub>2</sub>O<sub>3</sub>. An experimental batch was produced at the ogneupornyy tsakh Chelyabinskogo metallurgicheskogo zavoda (Workshop of Refractory Materials of the Chelyabinsk Metallurgical Plant). The kaolin was fired as a mixture with 20% Buskul'skaya clay. The composition of the clay (related to fired material) was: Al<sub>2</sub>O<sub>3</sub> + TiO<sub>2</sub> 31.9%, Fe<sub>2</sub>O<sub>3</sub> 2.65%, other substances 11.25%, refractoriness up to 1680°C. The briquets were fired at 1400 - 1420°C for 6 - 8 hr. Crushing, milling, preparation and mixing was done by the usual procedure. The products were made from a mass prepared by semi-dry pressing or plastic forming. A binder of 50% clay and 50% kaolin was used for products from pressed mass, one of 75% clay and 25% kaolin for those from plastically formed mass. The products were dried in tunnel kilns; those made from semi-dry pressed mass were subsequently fired at 1340 - 1360°C, those from plastically formed mass at 1270 - 1300°C. The products corresponded to class B (ladle bricks type II (P) and II5 (P5) according to ГОСТ5341-58 (GOST5341-58), stop pipes type III-8 (SP-8), and siphons

Card 2/3

Refractory materials from...

S/151/61/000/010/001/004  
B130/B101

C-34 (S-34) according to GOST 4978-49. If the chamotte is fired in a rotary furnace and the specific molding pressure is increased, the concentrated kaolin may be used for the production of materials of class A. M. I. Loseva assisted in testing the kaolin, Yu. A. Avvakumov and Yu. F. Mikhaylov in its concentration, G. G. Brodetskiy, A. A. Yakovlev, A. I. Terekhin, M. A. Pshenichnikov, A. I. Baklemyshova, N. A. Kotova, I. M. Mekhrenina and N. D. Karpova in preparing the products. There are 4 tables and 7 Soviet references.

ASSOCIATION: Vostochnyy institut ogneuporov (Eastern Institute of Refractory Materials) (Z. S. D'yachkova, N. V. Kelarev); Chelyabinskij metallurgicheskiy zavod (Chelyabinsk Metallurgical Plant) (P. A. Lande)



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EXCERPTA MEDICA №3c 2 Vol 12/12 Physiology Dec 59

5624. ECG VARIATIONS ACCOMPANYING CERTAIN CHANGES IN METABOLISM OF HEART TISSUE (IMPAIRED MYOCARDIAL GLYCOLYSIS) (Russian text) - Kelareva N. A. Dept. of Animal Physiol., Moscow Univ. -

FIZIOL. ZH. IM. SECH. 1959, 45/1 (74-82) Graphs 4 Illus. 1

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 G.S. Gol'shman, Engineer; A.A. Yevdokimov, Engineer; A.S. Yeremeyev,  
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Turbine Installations (Cont.)

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(Leningrad Division, "Gidroenergoprojekt" Institute, Leningradskiy  
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 N.N. Kovalev; Ed.: A.L. Mozhevitinov; Tech. Ed.: A.A. Zabrodina.

PURPOSE: This book is a manual for engineers and technicians engaged  
 in the design of hydroelectric power plant equipment, and also for  
 students of power and power machine-building institutes and depart-  
 ments.

COVERAGE: The manual contains materials on turbine installations  
 needed for designing hydroelectric power stations. Information  
 based on modern achievements in Soviet turbine building are pre-  
 sented. Hydraulic designs of turbine flow passages and plotting  
 of operating characteristics are discussed. Data are presented on  
 turbine speed regulation and automatization of hydromechanical  
 equipment, and on turbine auxiliary equipment, generators,

Card 2/13

Turbine Installations(Cont.)

SOV/1716

installation and repair. A section of the book is devoted to tabulated data and cross section drawings of various Soviet and non-Soviet turbine installations of hydroelectric power stations. Information on testing of turbines and technical conditions for designing and specifications for supplying adjustable-blade, radial-axial [mixed flow] and bucket-type turbines are presented in Appendices 1 and 2. Appendix 3 contains conversion tables for measures. The Director of the "Gidroenergoprojekt" Institute, Professor A.N. Voznesenskiy, Director P.M. Yanovskiy of the Leningrad Division of the Institute, and Chief Engineer B.M. Lyubchenko, of the Institute's Department of Standard Designs, rendered great assistance in organizing the work on the second edition. The Editorial Board thanks Professors F.F. Gubin, V.S. Kvyatkovskiy, and N.M. Shchapov, and Docent M.M. Orakhelashvili for comments on the first edition. There are no references.

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